# REPORT

OF THE

# Agricultural Department,

**ST. KITTS-NEVIS,**

FOR THE YEAR ENDED

**31ST DECEMBER, 1942.**

STAFF OF THE DEPARTMENT.

*ST. KITTS.*

| | | |
|---|---|---|
| Agricultural Superintendent | ... | R. E. Kelsick |
| Junior Agricultural-Assistant | .. | E. R. H. Martin, D I C.T. |
| Agricultural Instructor | .. | E. O. R. Lake |
| Land Officer & Cotton Inspector | ... | W. C. Chaderton |
| Junior Agricultural Instructors(C.D.&W.) | | V.F. Banks(from 15 Sept) |
| | | J. Douglas „ „ |
| Foreman, Experiment Station | ... | C. L. Woods(from 15 Apl) |
| Assistant Clerk | ... | A. E. Hebson |

*NEVIS.*

| | | |
|---|---|---|
| Assistant Agricultural Officer | ... | J. N. W. Niccolls |
| Agricultural Instructor | ... | S. H. Abbott (from 8th Oct.) |
| Junior Agricultural Instructors(C.D.&W.) | | J. Hanley(from 15th Apl) |
| | ... | R. A. Hull (from 1st Apl) |
| Land Officer & Cotton Inspector | ... | C. Wilson |
| Marketing Officer (C.D.&W.) | ... | W. I. Howell |
| Assistant Marketing Officer (C.D.&W.) | | L. M. Parris (from 1st Apl.) |
| Petty Officer Class 2A (for duty as Clerk) | | J. Barrett |

*ANGUILLA.*

| | | |
|---|---|---|
| Agricultural Instructor | ... | F. S. Delisle. |

## Section I.

AGRICULTURE IN THE PRESIDENCY.

*Weather Conditions.* In St. Kitts the average rainfall for the year was 81.53 inches. This is 25.93 inches above the average and the highest rainfall recorded for the past twenty-nine years. Almost half of this rainfall was obtained in the months of April, June and November, when much damage was done to estates' roads and crops by exceptionally heavy downpours.

In Nevis the rainfall recorded at the Experiment Station was 77.97 inches, which is 29 inches above the average for the past thirty-five years.

In Anguilla dry weather was experienced for the greater part of the year but good rains fell in October and November.

## SUGAR.

*St. Kitts.* In 1941, the average rainfall was 50.92 inches with an unfavourable distribution. Cane yields for the 1942 crop were lower than those of 1941 and heavy rains during the last three months of the reaping season, which affected the quality of the cane caused a reduction of the sugar crop.

The St. Kitts (Basseterre) Sugar Factory purchased from growers in St Kitts 273,275 tons of canes as compared with 290,210 tons in 1941 and 263,818 tons in 1940. Returns from estates show that 10,052 acres were reaped as against 10,178 acres in 1941 and 9,735 acres in 1940 The average yield of cane per acre was 27.19 tons as against 28.51 tons in 1941 and 26.94 tons in 1940. The average yield of sugar was 3.24 tons per acre as against 3.60 tons in 1941. The output of the St. Kitts (Basseterre) Sugar Factory was 33,031 tons of grey crystals which is 4,000 tons less than the output of the previous season.

Over 60 per cent of the area reaped was occupied by the variety B. 2935. Very good yields are usually given by this variety but it has two important defects. It is liable to serious rotting if planted too early and its juice quality is poor if it is reaped before reaching full maturity. A better variety is urgently needed to take its place. Some promising varieties (B. 37161, B. 35187 and B. 34104) have been introduced recently from the Central Cane Breeding Station in Barbados and are being grown experimentally.

The crop was sold to the British Goverment at £13. 2s. 9d. per ton f. o. b. and contracting growers received from the Factory a total price of 19s. 7. 74d per ton for their canes. The Contractor's Share of Surplus paid to the estates at the end of the year amounted to £52,337. 14s. 6d. and approximately one third of this was distributed to estates' labourers as a bonus. At the end of the year 8,000 tons of sugar remained on the island awaiting shipment.

At the end of the year the 1943 crop was estimated at 37,000 to 38,000 tons of sugar from 10,031 acres.

*Nevis.* There is a steady decrease in sugar cane cultivation on the island 3,849 tons of canes were purchased by Messrs Wildy & Co. for shipment to the St. Kitts (Basseterre) Sugar Factory as against 4,594 tons for the previous year. The remainder of the cane crop was used for the manufacture of muscovado sugar for local consumption. Growers who sold canes for shipment to St. Kitts received a total payment of 13/4¾d. per ton at the scales.

## COTTON.

*Cotton.* In St. Kitts the cotton crop of 1942 was very poor as a result of adverse weather conditions. The crop was damaged by exceptionally heavy rains and suffered from attacks of cotton leaf worm and heavy infestation by the pink bollworm. In Nevis a large cotton crop was reaped for the 1941—42 season and in Anguilla the crop was much better than that of the previous season. In Nevis the crop was attacked by the cotton leaf worm but in Nevis and Anguilla damage by the pink bollworm was not serious. The crop was reaped from the following acreages: St Kitts 1,530 acres, Nevis 4,500 acres and Anguilla 225 acres.

The following figures show the production in each island :

| | Clean Lint lb. | Stained Lint lb. | Total lb. |
|---|---|---|---|
| St. Kitts . . | 138,127 | 50,046 | 188,173 |
| Nevis ... | 579,148 | 31,677 | 610,825 |
| Anguilla ... | 29,357 | 1,200 | 30,557 |
| Total ... | 746,632 | 82,923 | 829,555 |

All clean lint shipped prior to the 1st September was purchased by the Ministry of Supply at 1/10½d per lb. f.o.b. From the 1st September the price was increased by the Ministry to 1/11½d per lb. Stained cotton is shipped on consignment to the British Cotton Growing Association for disposal. At the end of the year 77 bales (38,303 lbs.) of white cotton and 108 bales (50,046 lbs.) of stained were on hand in St. Kitts for shipment.

In Nevis 1,369,482 lbs clean seed cotton were purchased by Goverment from peasants and 410,519 lbs. clean lint marketed on their behalf, 19,209 lbs. of stained lint were shipped to the British Cotton Growing Association on consignment on behalf of peasants. The total price received by peasants in Nevis for clean seed cotton was 6½d per lb.

## MINOR INDUSTRIES.

*Coconut Industry.* The coconut plantations in Nevis continue healthy and there has been a marked increase in the production of nuts. At Pinneys and Paradise the total production for the year was 460,000 nuts as against 328,034 nuts in 1941 and 218,668 nuts in 1940. The total quantity of copra exported was 10 tons.

*Maize.* The corn mill on the Hardtimes Settlement in Nevis was operated for a considerable period of the year. 261 bags (100 lb bags) of cornmeal were crushed. This is a marked improvemeмt in production over the previous year, and there is every reason to believe that the output for 1943 will show an increase over the year under review.

Selected seed was distributed at the Experiment Station and many peasants availed themselves of the opportunity to produce a better type of maize.

## FOOD CROPS.

During the year the cultivation of food crops on sugar estates in St. Kitts was made compulsory. The Vegetable Production (Defence) Control Order came into operation on the 23rd March, 1942. This Order gives authority to the Agricultural Superintendent to issue notices from time to time to the owners of sugar plantations requiring them to plant and cultivate a percentage of their sugar cane cultivation in vegetables. The first notice issued under the Order fixed the proportion at 10 per cent but this was subsequently increased to 20 per cent. Sugar estates are now required to plant definite areas of sweet potatoes, cassava, yams, Indian corn and pigeon peas on their lands used for sugar cultivation. These areas are in addition to the upper lands which are given to labourers for the cultivation of ground provisions. If the programme which has been arranged for 1943 is achieved local food production in St. Kitts should be on a satisfactory scale.

Efforts are being made to establish Indian corn as a subsidiary industry in St. Kitts and to encourage the cultivation of the crop by sugar estates. Goverment has placed orders in the U. S. A. for a Kiln Drier, Corn Mill and other necessary equipment for dealing with the crop.

In Nevis there was a definite increase in the producton of food crops over 1941, but there is still room for improvement. Under Defence Regulation No 34 of 1942 it is compulsory for every cotton grower to cultivate on the area of land intended to be used by him for the cultivation of cotton vegetables of such a kind as are approved by the Agricultural Department to an extent of at least 20 per cent of such area.

There was a marked increase in the cultivation of corn, cassava, yams and bananas.

Owing to unfavourable weather conditions the quantity of food crops reaped in Anguilla during 1942 was small. Three separate attempts were made by peasants to establish crops of Indian corn,

pigeon peas, beans, yams, sweet potatoes and cassava. The first and second plantings made in April and July respectively were almost entirely lost through dry weather though a fair amount of pigeon peas and some yams were saved. The third planting began in October and this was seriously damaged by excessive rains. Large quantities of planting material had to be sent from St Kitts for replanting.

Praedial larceny continues to be a serious problem for growers of food crops both in St Kitts and Nevis.

## LIVESTOCK.

The pedigree animals on Goverment Land Settlement estates in St. Kitts and Nevis were in considerable demand during the year and are rendering valuable service toward stock improvement.

In Anguilla a pedigree boar of the Large Black type was kept at the Demonstration Plot during the year. This boar was made available to owners of sows from April.

In St. Kitts and Nevis a beginning was made by the Department in rabbit keeping on some of the land settlement estates.

A serious sickness was prevalent among horses and mules on sugar estates during the year and there were several deaths. A careful investigation of the matter will have to be made by the Veterinary Officer.

## GOVERNMENT DAIRY.

A proposal, which was made by the Inspector General of Agriculture, to establish a Government Dairy and Livestock Farm in St. Kitts was considered and accepted by Government. At the end of the year the project had not materialised. In the meantime, on the advice of the Director of Agriculture, Government made arrangements for the purchase of five cows and dairy equipment from the owner of a small dairy on the island.

# Section II.

## WORK OF THE DEPARTMENT OF AGRICULTURE.

*Plant Importations.* The following new cane varieties were received from the Plant Quarantine Station in Trinidad; B. 39184, B. 39237, B. 39200, B. 39207, B. 39222, B.39220, B. 39171, B. 39157 and B. 39177.

Seeds of Egyptian Wheat, Italian Millet, Jamaica Cowpea and Lima Beans were received from the Director of Agriculture; Italian Millet and vegetable seeds from the Curator, Montserrat; Soya Bean (Venezuela Cream ) from the Commissioner of Agriculture.

Cauliflower seed was imported from India and a supply of vegetable seeds from Messrs Burpee & Sons was received through the Director of Agriculture.

A supply of pedigreed cotton seed was received from the Cotton Station in Montserrat.

*Plant Distribution.* The following were the more important propagating material distributed during the year; sugar cane cuttings, cassava cuttings, Indian corn, sweet potato cuttings, blackeye peas, cotton seed, guinea corn, yam seed, pigeon peas, grafted mango plants, budded citrus plants, decorative plants, vegetable seedlings and vegetable seeds.

*Experiment Stations.* At the Stations in St. Kitts and Nevis work was continued on the improvement of locally grown food crops and plots of varieties of sweet potatoes, cassava and yams were maintained. The propagation of fruit trees and decorative trees and plants,

the multiplication of new cane varieties received from the Plant Quarantine Station and of pedigreed cotton seed from Montserrat were continued.

## EXPERIMENTAL WORK.

*Sugar Cane.* Experimental work with this crop is carried out by the Department in co operation with the St. Kitts Sugar Association Ltd. and all experiments are conducted on the sugar estates. The experimental scheme is planned each year by Mr. P. E. Turner, M. Sc., F. I. C., Sugar Agronomist.

During the year the staff of the Department supervised the reaping of 12 Varietal, 5 Cultural and 29 Manurial Experiments. The results of these were published by the Sugar Agronomist and copies were sent to the owners and attorneys of sugar estates.

For the 1942-44 crop 12 Varietal, 4 Cultural and 4 Manurial experiments were laid down.

## PREPARATION OF SILAGE.

On the recommendation of the Inspector General of Agriculture experiments on the preparation of silage from maize and elephant grass in pit silos were undertaken in St. Kitts and in Nevis. In St. Kitts three pits were prepared at Fahies ( two of maize and one of elephant grass ) and four at Saddlers (two of maize and two of elephant grass ) and in Nevis one pit of maize and one of grass at Prospect. The material was cut by hand and was treated with molasses at the rate of 1½ lbs. of molasses to each 100 lbs. of material. The molasses was diluted with an equal quantity of water and applied by means of a watering can. Some of these pits were opened in December, four months after they had been filled. The silage appeared to be of good quality but all the animals to which it was fed would not eat it in the fresh condition even when molasses was added. It is probable that our animals will take some time to acquire a liking for silage.

## LAND SETTLEMENT SCHEMES.

*St. Kitts.* Satisfactory progress is being made on the Fahies and Saddlers estates.

*Nevis.* Towards the end of the year Nisbetts estate was purshased for land settlement and there are now seven settlement areas in Nevis; of these two are freehold and five are on a rental basis. 258 allottees have their lots on freehold and 129 rent their plots. On the whole the progress of these schemes is satisfactory.

## GOVERNMENT GINNERY IN NEVIS.

The total quantity of seed cotton ginned was 1,377,292 lbs. clean and 94,724 lbs. stained, which gave 420,211 lbs. of clean and 25,277 lbs. of stained lint.

## MARKETING OF PEASANTS' COTTON IN NEVIS.

The marketing of peasants' cotton was continued as in the past. An advance of 4d per lb. was paid on all clean seed cotton delivered to the Department and an additional advance of 1d. per lb. was paid later to assist growers in the preparation of lands for the next crop. 1,369,482 lbs. of clean seed cotton were purchased and 410,513 lbs. lint sold to the Ministry of Supply. A price of 1/10½d. per lb. was received for the greater part of the crop. After deducting expenses a bonus of 1½d per lb. for seed cotton was paid making a total price of 6½d per lb. for clean seed cotton. Government also advanced ½d. per lb. on stained seed cotton.

## CHEMICAL ACTIVITIES.

The samples examined in the Laboratory consisted mainly of milk and kerosene oil from the Customs Department for flash point.

## AGRICULTURAL EDUCATION.

The Agricultural Superintendent continued to give lectures in Soil Science and Botany twice weekly to the Senior class from the Grammar School.

## SOIL CONSERVATION.

*St. Kitts.* On the sugar estates interest in methods of soil conservation was maintained and contour cultivation has now been adopted on several estates. Many estates have purchased road tracers for the use of their managers and overseers. The use of pen manure for the maintenance of soil fertility is still the practice on all estates.

On the Fahies and Saddlers settlements special attention was paid to contour cultivation and other soil conservation measures. All the allottees show considerable interest in these measures and satisfactory progress is being made with the problem of soil erosion on these two estates. On the Saddlers estate a demonstration plot was laid down on the upper lands.

Two Junior Agricultural Instructors were appointed during the year to deal with soil conservation work on the upper lands of sugar estates which are used by labourers for the cultivation of food crops. They have already visited the upper lands in several districts and given advice and assistance to the peasants regarding methods of cultivation for the prevention of soil erosion.

The question of laying down trials of the Matengo system of soil conservation, which was recommended by the Inspector General of Agriculture, was considered and it is hoped to lay down at least two trials of the system on the upper lands early in 1943.

*Nevis.* Much attention was given to the question of soil conservation during the year. Contour cultivation is carried out where necessary and is further assisted by the building of stone walls and the planting of grass strips. On each Government land settlement area there is an investigational plot and on the hilly settlements these plots are contoured and grass strips planted as a means of demonstrating and explaining to peasants the methods recommended by the Department.

## LEGISLATION AFFECTING AGRICULTURE.

In the 1938 Report of the Department a complete list is given of the legislation affecting agriculture which is in force. In 1942 the Vegetable Production (Defence) Control Order came into operation.

## VISITS.

The newly appointed Director of Agriculture for the Leeward Islands, Mr. R. Johns, N.D.A., C.D.A., C D.D , A.I.C.T.A., visited the Presidency in October. He was accompanied by the Chief Veterinary Officer of the Colony, Dr. Hutson.

Mr. P. E. Turner, M. Sc., F. I. C , Sugar Agronomist, visited the island twice during the year.